INTRODUCTION

This packet may be used for the following types of remedial systems treating gasoline contaminated soil:

1. Thermal and/or Catalytic Oxidizers;
2. Internal Combustion (I.C.) Engines;
3. Carbon Canisters.

If you have any question on the applicability of this packet to your remedial system, call ADEQ-Air Quality Division at (602) 207-2388 or Small Business Assistance Group at (602) 207-2233.

The purpose of this packet is to assist applicants and ADEQ in processing air permit applications for remediation units treating extracted vapors from petroleum contaminated soil.

If you feel that your remedial system will not require a permit, you do not need to notify the Department of the remedial operation but should keep records of all supporting information used in this determination. If the Department determines that you were required to obtain a permit but failed to do so, you may be subject to enforcement action.

If you determine that your remediation system may require a permit, or wish to permit a portable piece of remedial equipment, all required information should be completely filled out and returned to the Department.

Alternative Operating Scenarios

Submitting the required information for all anticipated operating scenarios, including direct discharge, will prevent the applicant from undergoing a permit revision when switching to a less expensive control device or direct discharge.

Basis for Permit

The applicant's emissions will be limited based upon the Arizona Ambient Air Quality Guideline (included in this packet) for benzene. Benzene, being the most stringently regulated constituent of gasoline, serves as the indicator compound for these sites. For this reason, ambient air quality modeling will be run for benzene and Total Petroleum Hydrocarbon (TPH) limit will be based upon this result. Benzene will be assumed to be 3% of the Total TPH content. For each proposed operating scenario (i.e. alternate air pollution control devices), a corresponding TPH limit will be calculated. Once a TPH limit is calculated, the feasibility of the proposed Air Pollution Control Device (APCD) of meeting this limit will be determined based upon supporting information submitted by the applicant.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
3033 North Central Avenue g Phoenix, Arizona 85012-2809-33 g Phone: (602) 207-2338

STANDARD PERMIT APPLICATION

(As required by A.R.S. Š 49-426, and Chapter 2, Article 3, Arizona Administrative Code)

1. Permit to be issued to: (Business license name of organization that is to receive permit) _____

_____

2. Mailing Address: _____.

City: _____. State: _____. ZIP: _____.

3. Previous Company Name: (if applicable) _____.

4. Name (or names) of Owners/Principals: _____.

Fax #: _____. Phone: _____.

5. Name of Owner's Agent: _____.

Fax #: _____. Phone: _____.

6. Plant/Site Manager/Contact Person and Title: _____.

Fax #: _____. Phone: _____

7. Plant Site Name: _____

Plant Site Location/Address: _____

City: _____. County: _____. ZIP: _____

Indian Reservation (if applicable, which one): _____

Latitude/Longitude, Elevation: _____

8. Equipment Purpose: _____

Equipment List/Description: _____

_____

_____

_____

9. Type of Organization:

~ Corporation ~ Individual Owner

~ Partnership ~ Government Entity (Government Facility Code): _____.

~ Other _____.

10. Permit Application Basis: ~ New Source ~ Revision

(*Check all that apply)* ~ Portable Source ~ General Permit

~ Renewal of existing Permit

For renewal or modification, include existing permit number (and expiration date): _____.

Date of Commencement of Construction or Modification: _____.

Is any of the equipment to be leased to another individual or entity? ~ Yes ~ No

Standard Industrial Classification Code: _____. State Permit Class: _____.

11. Signature of Responsible Official of Organization: _____.

Official Title of Signer: _____.

12. Typed or Printed Name of Signer: _____.

Date: _____. Telephone Number: _____.

REQUIRED INFORMATION

In addition to the forms contained in this packet, the following additional information is required:

1. Initial site location and diagram;

2. Description of Air Pollution Control Device (i.e. Thermal/Catalytic Oxidizer, I.C. Engine, Carbon Adsorption, Direct Discharge, etc.);

3. All calculations, including any supporting documentation.

Please complete this summary table for each proposed pollution control device (be sure to include site diagrams and topo maps with this packet)

Air Pollution Control Devices (APCD)	
Annual Operating Hours	
Fuel Type(s) for APCD (i.e. gasoline, diesel, natural gas, etc.)	
Maximum Fuel Usage for APCD (gallons/hr)	
Generator Size (horsepower or kilowatts)	
Fuel Type(s) for generator (i.e. gasoline, diesel, natural gas, etc.)	
Maximum Fuel Usage for Generator (gallons/hour)	
Stack Height (ft)	
Stack inside Diameter (ft)	
Rated Maximum Exit Flowrate, specify actual or standard conditions (cfm)	
Stack Gas Exit Velocity (ft/s)	
Stack Gas Exit Temperature (^{o}F)	
Mass of Contamination at Site (omit for portables)	

COMPLIANCE PLAN
FOR
SOIL REMEDIATION OPERATIONS

The Responsible Official shall submit a Compliance Plan with the following permit applications, and at such other times as requested by the Director.

C Initial Class I or Class II Permit Application

C Application for a Class I or Class II Permit Renewal

C Application for a Significant Revision to a Class I or Class II Permit

---

1. Compliance status with respect to all Applicable Requirements:

   Will your facility be in compliance at the time of permit issuance, or is your facility currently in compliance with the following applicable requirements?

   a. A.A.C. R18-2-719 **9** YES **9** NO **9** NA
   (Fuel Burning Equipment: this rule is applicable to any type of stationary rotating machinery aggregate greater than 325 brake horsepower; for example generators or internal combustion engines)

   b. A.A.C. R18-2-309 **9** YES **9** NO **9** NA
   (Compliance Plan; Certification)

   c. A.A.C. R18-2-324 **9** YES **9** NO **9** NA
   (Portable Sources)

   d. A.A.C. R18-2-702 **9** YES **9** NO **9** NA
   (General Provisions: this rule states that the opacity of any effluent shall not be greater than 40%)

   e. A.A.C. R18-2-730 **9** YES **9** NO **9** NA
   (Standards of Performance for Unclassified Sources: this rule is applicable to all soil remediation facilities)

   f. A.A.C. R18-2-313 **9** YES **9** NO **9** NA
   (Transition from Installation and Operating Permit Program to Unitary Permit Program: Applicable for Existing Sources)

2. If any applicable requirement under section 1 has a box marked “NO”, you must submit a “COMPLIANCE SCHEDULE.” Call ADEQ-Air Quality for a copy.

3. Any Comments:

COMPANY NAME: _____.

EMISSION SOURCES

Estimated "Potential to Emit" per R18-2-101. PAGE ____ OF ____
Review of applications and issuance of permits will be expedited by supplying all necessary information on this Table. DATE

REGULATED AIR POLLUTANT DATA					EMISSION POINT DISCHARGE PARAMETERS										
EMISSION POINT [1]		CHEMICAL COMPOSITION OF TOTAL STREAM	R. AIR POLLUTANT EMISSION RATE		UTM COORDINATES OF EMISSION POINT [5]			STACK SOURCES [6]					NONPOINT		
NUMBER	NAME	REGULATED AIR POLLUTANT NAME [2]	#/HR. [3]	TONS/YEAR [4]	ZONE	EAST (Mtrs)	NORTH (Mtrs)	HEIGHT ABOVE GROUND (feet)	HEIGHT ABOVE STRUC. (feet)	EXIT DATA			SOURCES [7]		
										DIA. (ft)	VEL. (fps)	TEMP. (°F)	LENGTH (ft.)	WIDTH (ft.)	

GROUND ELEVATION OF FACILITY ABOVE MEAN SEA LEVEL _____ feet
ADEQ STANDARD CONDITIONS ARE 293K AND 101.3 KILOPASCALS (A.A.C. R18-2-101)

General Instructions:

1. Identify each emission point with a unique number for this plant site, consistent with emission point identification used on plot plan, previous permits, and Emissions Inventory Questionnaire. Include fugitive emissions. Limit emission point number to eight (8) character spaces. For each emission point use as many lines as necessary to list regulated air pollutant data. Typical emission point names are: heater, vent, boiler, tank, reactor, separator, baghouse, fugitive, etc. Abbreviations are O.K.
2. Components to be listed include regulated air pollutants as defined in R18-2-101. Examples of typical component names are: Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Sulfur Dioxide (SO_2), Volatile Organic Compounds. (VOC), particulate matter (PM), particulate less than 10 microns (PM_{10}), etc. Abbreviations are O.K.
3. Pounds per hour (#/HR) is maximum potential emission rate expected by applicant.
4. Tons per year is annual maximum potential emission expected by applicant, which takes into account process operating schedule.
5. As a minimum applicant shall furnish a facility plot plan as described in the filing instructions. UTM coordinates are required only if the source is a major source or is required to perform refined modeling for the purpose of demonstrating compliance with ambient air quality guidelines.
6. Supply additional information as follows if appropriate
   (a) Stack exit configuration other than a round Vertical stack. Show length and width for a Rectangular stack. Indicate if horizontal discharge with a note.
   (b) Stack's height above supporting or adjacent structures if structure is within 3 "stack height above the ground" of stack.
7. Dimensions of nonpoint sources as defined in R18-2-

APPENDIX 1. STANDARD PERMIT APPLICATION FORM AND FILING INSTRUCTIONS

FILING INSTRUCTIONS

No application shall be considered properly filed until the Director has determined that all information required by this application form and the applicable statutes and regulations has been submitted. The Director may waive certain application requirements for specific source types. For permit revisions, the applicant need only supply information which directly pertains to the revision. The Director shall develop special guidance documents and forms to assist certain sources requiring Class 2 permits in completing the application form and filing instructions. Guidance documents can be requested by contacting the Air Quality Division at the address and phone number given on the "Standard Permit Application Form."

In addition to the information required on the application form, the applicant shall supply the following:

1. Description of the process to be carried out in each unit (include Source Classification Code).
2. Description of product(s).
3. Description of alternate operating scenario, if desired by applicant (include Source Classification Code).
4. Description of alternate operating scenario product(s), if applicable.
5. A flow diagram for all processes.
6. A material balance for all processes (optional, only if emission calculations are based on material balance).
7. Emissions Related Information:
    a. The source shall be required to submit the potential emissions of regulated air pollutants as defined in R18-2-101 for all emission sources. Emissions shall be expressed in pounds per hour, tons per year, and such other terms as may be requested. Emissions shall be submitted using the standard "Emission Sources" portion of the "Standard Permit Application Form". Emissions information shall include fugitive emissions in the same manner as stack emissions, regardless of whether the source category in question is included in the list of sources contained in the definition of major source in R18-2-101.
    b. The source shall be required to identify and describe all points of emissions and to submit additional information related to emissions of regulated air pollutants sufficient to verify which requirements are applicable to the source and sufficient to collect any permit fees owed under the fee schedule.
8. Citation and description of all applicable requirements as defined in R18-2-101.
9. An explanation of any proposed exemptions from otherwise applicable requirements.
10. The following information to the extent it is needed to determine or regulate emissions:
    a. Maximum annual process rate for each piece of equipment which generates air emissions.
    b. Maximum annual process rate for the whole plant.
    c. Maximum rated hourly process rate for each piece of equipment which generates emissions.
    d. Maximum rated hourly process rate for the whole plant.
    e. For all fuel burning equipment including generators, a description of fuel use, including the type used, the quantity used per year, the maximum and average quantity used per hour, the percent used for process heat, and higher heating value of the fuel. For solid fuels and fuel oils, state the potential sulfur and ash content.
    f. A description of all raw materials used and the maximum annual and hourly, monthly, or quarterly quantities of each material used.
    g. Anticipated Operating Schedules
        1. Percent of annual production by season.
        2. Days of the week normally in operation.
        3. Shifts or hours of the day normally in operation.
        4. Number of days per year in operation.
    h. Limitations on source operations and any work practice standards affecting emissions.
11. A description of all process and control equipment for which permits are required including:
    a. Name.
    b. Make (if available).
    c. Model (if available).
    d. Serial Number (if available).
    e. Date of Manufacture (if available).
    f. Size/production capacity.
    g. Type.
12. Stack Information:
    a. Identification.
    b. Description.
    c. Building Dimensions.
    d. Exit Gas Temperature.
    e. Exit Gas Velocity.
    f. Height.
    g. Inside Dimensions.
13. Site diagram which includes:
    a. Property boundaries.
    b. Adjacent streets or roads.
    c. Directional arrow.
    d. Elevation.
    e. Closest distance between equipment and property boundary.
    f. Equipment layout.
    g. Relative location of emission sources/points.
    h. Location of emission points and non-point emission areas.
    I. Location of air pollution control equipment.
14. Air pollution Control Information:
    a. Description of or reference to any applicable test method for determining compliance with each applicable requirement.
    b. Identification, description and location of air pollution control equipment, including spray nozzles and hoods, and compliance monitoring devices or activities.
    c. The rated and operating efficiency of air pollution control equipment.
    d. Data necessary to establish required efficiency for air pollution control equipment (e.g. air to cloth ratio for baghouses, pressure drop for scrubbers, and warranty information).
    e. Evidence that operation of the new or modified pollution control equipment will not violate any ambient air quality standards, or PSD increments.
15. Equipment manufacturer's bulletins and shop drawings may be acceptable where appropriate.
16. Compliance:
    a. A description of the compliance status of the source with respect to all applicable requirements including, but not limited to:
        i. A demonstration that the source or alteration will comply with the applicable requirements contained in Article 6.
        ii. A demonstration that the source or alteration will comply with the applicable requirements contained in Article 7.
        iii. A demonstration that the source or alteration will comply with the applicable requirements contained in Article 8.
        iv. A demonstration that the source or alteration will comply with the applicable requirements contain in Article 9.
        v. A demonstration that the source or alteration will comply with the applicable requirements contained in Article 11 and in rules promulgated pursuant to A.R.S. § 49-426.03.
        vi. A demonstration that the source or alteration will comply with the applicable requirements contained in rules promulgated pursuant to A.R.S. § 49-426.06.
    b. A compliance schedule as follows:
        1. For applicable requirements with which the source is in compliance, a statement that the source will comply with such requirements.
        2. For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner applicable requirements that become effective during the permit term shall satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirement.
        3. A schedule of compliance for sources that are not in compliance with all applicable requirements at the time or permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.
    c. A schedule for submission of certified progress reports no less frequently than every 6 months for sources required to have a schedule of compliance to remedy a violation.
    d. The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a

compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the Act with regard to the schedule and method(s) the source will use to achieve compliance with the acid rain emissions limitations.

17. Compliance Certification:
    a. A certification of compliance with all applicable requirements by a responsible official. The certification should include:
        1. Identification of applicable requirements which are the basis of the certification;
        2. A statement of methods used for determining compliance, including a description of monitoring, record keeping, and reporting requirements and test methods;
        3. A schedule for submission of compliance certifications during the permit terms to be submitted no less frequently than annually, or more frequently if specified by the underlying applicable requirement or by the permitting authority; and
        4. A statement indicating the sources's compliance certification requirements.
        5. A certification of truth, accuracy, and completeness pursuant to R18-2-304(H).
    b. Acid Rain Program Compliance Plan:
    Sources subject to the Federal acid rain regulations shall use nationally-standardized forms for acid rain portions of permit applications and compliance plans, as required by regulations promulgated under Title IV of the Act.
18. A new source as defined in R18-2-401 or a major modification shall submit all information required in this appendix and information necessary to show compliance with Article 4 including, but not limited to:
    a. For sources located in a Non-Attainment Area:
        1. In the case of a new major source as defined in R18-2-401 or a major modification subject to an emission limitation which is LAER (Lowest Achievable Emission Rate) for that source or facility, the application shall contain a determination of LAER that is consistent with the requirements of the definition of LAER contained in R18-2-101. The demonstration shall contain the data and information relied upon by the applicant in determining the emission limitation that is LAER for the source or facility for which a permit is sought.
        2. In the case of a new major source as defined in R18-2-401 or a major modification subject to the certification requirements of R18-2-403(A)(2), the applicant shall submit such certification in a form that lists and describes all existing major sources owned or operated by the applicant and a statement of compliance with all conditions contained in the permits or conditional orders of each of the sources.
        3. In the case of a new major source as defined in R18-2-401 or a major modification subject to the offset requirements described in R18-2-403(A)(3), the applicant shall demonstrate the manner in which the new major source or major alteration meets the requirements of R18-2-404.
        4. An applicant for a new major source as defined in R18-2-401 or a major alteration for volatile organic compounds or carbon monoxide (or both) which will be located in a nonattainment area for photochemical oxidants or carbon monoxide (or both) shall submit the analysis described in R18-2-403(B).
    b. For sources located in an Attainment Area:
        1. A demonstration of the manner in which a new major source or major modification which will be located in an attainment area for a pollutant for which the source is classified as a major source as defined in R18-2-401 or the modification is classified as a major modification will meet the requirements of R18-2-406.
        2. In the case of a new major source as defined in R18-2-401 or major modification subject to an emission limitation which is BACT (Best Available Control Technology) for that source or facility, the application shall contain a determination of BACT that is consistent with the requirements of the definition of BACT contained in R18-2-101. The demonstration shall contain the data and information relied upon by the applicant in determining the emission limitation that is BACT for the source or facility for Which a permit is sought.
        3. In the case of a new major source as defined in R18-2-401 or major alteration required to perform and submit an air impact analysis in the form prescribed in R18-2-407, such an analysis shall meet the requirements of R18-2-406. Unless otherwise exempted in writing by the Director, the air impact analysis shall include all of the information and data specified in R18-2-407.
        4. If an applicant seeks an exemption from any or all of the requirements of R18-2-406, the applicant shall provide sufficient information and data in the application to demonstrate compliance with the requirements of the subsection(s) under which an exemption is sought.
19. Calculations on which all information requested in this appendix is based.

SUBMITTING A COMPLETE PERMIT APPLICATION

These directions are to be used in conjunction with the Standard Permit Application and Filing Instructions contained in Attachment 1. These directions can be used for permit applications to construct new, reconstruct, renew, or modify existing equipment.

The application form and filing instructions are designed to assist the applicant in providing the information which will allow the Arizona Department of Environmental Quality (ADEQ) to determine the applicable regulations, determine if the standard will be met, and determine which fees apply.

Standard Permit Application Form (See attached)

ADEQ requires all applicants to submit the Standard Application Form. *Items #1 through #5* of the application form are self-explanatory. The rest are explained below in detail.

Item #6 asks for the Plant/Site manager or Contact Person. This should be the person who is responsible for implementing the permit at the facility and the person ADEQ may contact for additional information.

Item #7 requests the current or proposed location of the facility. If the application is for a portable plant. A Move Notice Form must be completed and returned to ADEQ each time the plant is moved. This form can be obtained by contacting ADEQ.

Item #8 asks the equipment purpose. This should be in the terms of what is produced at the plant. The equipment list/description can be a general description of the facility. A detailed list of equipment is requested later.

Under *Item #9*, if the "other" box is checked, please be specific as to what the organization is.

Item #10, Permit Application Basis, indicates what type of permit is necessary. If the facility is already permitted and is applying for a permit revision or renewal, then the current permit number must be included. The Date of Commencement of Construction or Modification is the expected date that construction will begin. This date need not be definite. If there is any chance that the equipment will be leased out, answer "yes" to the last part of item #10. If you check "no," the permit will contain a condition which prohibits leasing of the equipment; changing this condition will require a permit revision. The Standard Industrial Classification Code is a number which describes the type of facility and may be obtained by contacting ADEQ. The State Permit Class is the class of permit which was issued to the facility under the previous permitting program (the state permit class can be obtained by contacting ADEQ).

The "Responsible Official" referred to in *Item #11* is the owner or a partner of the company in most cases. It may also be the person responsible for environmental compliance. If there is a question as to who the responsible official is, contact ADEQ.

Citation and description of all Applicable Requirements

Applicants must list all federal and state requirements which may apply to the source. These may include:

- Federal New Source Performance Standards (NSPS)
- State regulations
- PSD/NSR permit requirements
- Testing requirements (including test methods: the previous permit should specify the testing requirements)
- Monitoring requirements (usually for larger sources)
- Hazardous air pollutant (HAP) requirements
- Acid Rain program requirements

Description of Proposed Exemptions from Otherwise Applicable Requirements

Proposed exemptions may include, but are not limited to:

- Generators rated at less than 244KW (325 hp) are exempt from permitting
- Fuel burning equipment under 500,000 BTU per hour for more than an 8-hour period is exempt from permitting, these may include:
  - Laboratory activities
  - Building maintenance
  - Some small liquid storage tanks

Note: Insignificant activities must be listed in the application but the associated emissions or equipment details need not be included.

Process Description

This description should help ADEQ staff to understand the manufacturing process used at the facility. The description should include:

- Description of the process to be carried out in each unit
- Description of Products
- Description of raw materials, intermediates and products (including fuels, solvents etc.)
- Process flow diagram (should track the process description)

Description Of Alternate Operating Scenarios

ADEQ allows applicants to submit alternating operating scenarios to allow for operational flexibility.

- Incorporated into the permit and allows operational changes without permit revision
- Source need not contact ADEQ to switch to alternate operating scenario, but must keep a record
- Examples include Varying:
  - Fuels
  - Solvents
  - Equipment Configurations
  - Products
  - Raw Materials
- Application Must Include for Each Scenario:
  - Additional Regulations Which Apply to the Scenario
  - Process Description
  - Process Flow Diagram

Site Diagram

- Equipment and Building Layout
- Building Heights
- Location of emission Points
- Property Boundaries
- Adjacent Streets
- Directional Arrow
- Elevation
- Scale (ADEQ will accept diagrams which are not scaled, but all dimensions must be shown)

Air Pollution Control Information

- Identification, location, and description of air pollution control equipment and techniques for example:
  - scrubbers
  - spray nozzles
  - water trucks
  - compliance monitoring activities
- Rated and operating efficiency of control equipment (rated efficiency should be available from the manufacturer of the equipment)
- Data used to establish efficiency for example:
  - Air-cloth Ratio for Baghouse
  - Pressure drop for scrubbers
  - May include warranty or manufacturer guarantee
- Evidence that the new or modified equipment will not violate any ambient air quality standards or PSD increments
  - Typically for a change in equipment at larger sources
- Description of, or reference to, any applicable test method for determining compliance with all requirements

Description of all Process and Control Equipment Requiring a Permit Including

- Type of Equipment
- Make
- Model
- Serial Number
- Date of Manufacture
- Rate Capacity or Control Efficiency

Note: Not all of the above information will be available to the applicant upon submitting an application. In such case the application should include at least the type and the anticipated capacity of the equipment.

Emissions

Applicants must submit the potential emissions of the facility. Emission estimates allow ADEQ to determine the applicable requirements, the ambient air impacts, and whether or not the standards can be met.

Potential Emissions

- Maximum capacity of a source to emit a pollutant under its physical and operational design
- Physical and operational design includes:
  - Limitations on hours of operation
  - Operational limitations on process rate
  - Pollution Controls

    (These limitations may be included in the final permit)
- Regulated air pollutants
  - Conventional (PM_{10}, NO_X, SO_X, VOC, CO, Pb, Ozone)
  - Federal Hazardous Air Pollutants (189 compounds)
  - State Hazardous Air Pollutants (not yet finalized)
  - Others (any pollutants subject to a standard, and certain CFCs and HCFCs)
- Include fugitive emissions

Emissions for Alternative Operating Scenarios

- Emissions for each scenario are preferred
- ADEQ may accept emissions from the scenario with the highest emission rate
- All possible compounds which may be emitted must be listed
- For example, if the applicant wants to be permitted to use two different equipment configurations which cause the same type pollutants to be emitted but at different rates, only the higher emissions need to be submitted. However, if the applicant wants to be permitted to use two different types of solvents, emissions from both solvents must be included.

Emission Sources Form

The Emissions Sources Form is to be used to submit the emissions in a concise manner. This form is included in Attachment 1. The emission point name and number should correspond to the site diagram. The potential emissions must be reported in terms of pounds per hour and tons per year. Universe Transmercator (UTM) coordinates are only required for major sources. The exit height of the stack above the ground and above the building must be shown. In addition, the inside dimensions or diameter of the exit as well as the exit gas velocity and exit gas temperature should be included. Finally, the length and width of the area which encompasses the fugitive emissions are required.

Calculating Emissions

- EPA's *Compilation of Air Pollutant Emission factors*, a.k.a. AP-42
  - most commonly used and always accepted
  - generally does not include HAPs emissions
  - generally does not speciate VOCs
- Emission tests from a similar plant or the actual plant
- Other published studies provided conditions are similar (will be used most often to estimate HAPs)
- Engineering calculations such as a material balance
- Include all information and references used to estimate emissions (ADEQ prefers copies of the references used)

Information Used to Estimate Emissions

- Maximum annual and hourly process rates for each piece of equipment
- Maximum annual and hourly process rates for the whole plant
- Type and composition of fuels used (e.g. sulfur content)
- Annual and hourly quantity of fuel used
- Heating value of fuel
- Annual and hourly quantity of raw materials used
- Operating schedule
  - Hours per day
  - Days per year
  - Percent of annual production by season
- Material balance (if used)
- All calculations

Additional Requirements for New Major Sources or Modifications in Attainment Areas

- Demonstration of how the plant will meet requirements
- Best Available Control Technology (BACT) determination

, Ambient air impact analysis

Compliance Plan

, Description of compliance status of the source with respect to each requirement including any existing permit conditions (for existing sources)

, Description of how new source or modification will comply with the applicable requirements (e.g. control schemes, recordkeeping, submission of reports)

, A compliance schedule is required for requirements with which the source is not in compliance

Compliance Schedule

, A statement that the source will continue to comply with requirements with which the plant currently complies

, A statement that the source will meet requirement s which become effective during the permit term

, Sequences of actions for remedial measures

, Milestones leading to compliance

, Schedule for submission of progress reports [reports must be submitted at least every six (6) months]

Compliance Certification

, Certification of compliance with applicable requirements (for items with which the source is in compliance)

, Statement of the methods used to determine compliance

C Emission Testing

C Records

C Monitoring

C Inspection reports by ADEQ

, Schedule for submission of compliance certifications at least annually

, Certification of truth, accuracy, and completeness (applies to the entire application, signed by the responsible official)

Note: Applicants are legally required to correct any incomplete or incorrect information submitted in the application upon discovery.

Certification of Compliance with all Applicable Requirements:

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

The responsible official is defined as a person who is in charge of principal business functions or who performs policy or decision making functions for the business. This may also include a authorized representative for such persons. For a complete definition see the Arizona Administrative Code, Title 18, Chapter 2, Section R18-2-301.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Arizona Department of Environmental Quality as public record. I also attest that I am in compliance with the applicable requirements listed in Section 1 and will continue to comply with such requirements and any future requirements that become effective during the life of my permit. I will present a certification of compliance to ADEQ no less than annually and more frequently if specified by ADEQ. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with Arizona Administrative Code, Title 18, Chapter 2 and any permit issued thereof.

Name (Print/Type): _____

(Signature): _____ Date: _____

Certification of Truth, Accuracy, and Completeness
Arizona Administrative Code R18-2-304.H.

R18-2-304.H. Certification of Truth, Accuracy, and Completeness. Any application form, report, or compliance certification submitted pursuant to this Chapter shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this Article shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

By my signature I, _____, hereby certify that based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Name (Print/Type): _____

(Signature): _____ Date: _____

Equipment List

Type of Equipment	Size	Manufacturer	Model	Serial #	Equipment ID

Example table to be maintained by applicant:

SAMPLE RECORD KEEPING TABLE

SOIL VAPOR EXTRACTION UNITS (SVEUs)

Date	Name of Testing Company	Type Air Pollution Control Device	VOCs Inlet Conc (ppm_v)	Benzene Outlet Conc (ppm_v)	Flow Rate @ Process Blower ($Q_{process}$, scfm)	Flow Rate @ Process Blower ($Q_{process}$, acfm)	Temp @ Exhaust Rate (T_{exit}, EF)

Where:

$Q_{process}$ / flowrate at the exit of process blower (acfm or scfm value; only one is required)

T_{exit} / stack gas exit temperature.

VOCs / concentration of volatile organic compounds in the inlet gas (from EPA Method 8021B)

C_6H_6 / concentration of benzene in the exhaust gas (from EPA Method 8021B).

Fee Rule Summary for Class I Sources

SOURCE

CLASS I

Individual TITLE V

PROCESSING FEE $66/hr No maximum fee

ACCELERATED PERMIT APPLICATION FEE $15,000

ANNUAL FEE

Administrative

Aerospace:	$12,900
Cement plants:	$39,500
Combustion/Boilers:	$9,600
Compressor stations:	$7,900
Electronics:	$12,700
Expandable Foam:	$9,100
Foundries:	$12,100
Landfills:	$9,900
Lime Plants:	$37,300
Copper & Nickle Plants:	$9,300
Gold Mines:	$9,300
Mobile Home Manufacturing:	$9,200
Paper Mills:	$12,700
Paper Coaters:	$9,600
Petroleum Products Terminal facilities:	$14,100
Polymeric Fabric Coaters:	$12,700
Reinforced Plastics:	$9,600
Semiconductors Fabrication:	$16,700
Copper Smelters:	$39,500
Utilities-Natural Gas:	$10,200
Utilities-Fossil Fuel except NG:	$20,200
Vitamin/Pharmaceutical Manufacturing:	$9,800
Wood Furniture:	$9,600
Others:	$9,900
Others with Continuos Emission Monitoring:	$12,700

Emission Based Fee

$11.75/TON Per Pollutant for all regulated Pollutants

General TITLE V

APPLICATION FEE $500

ANNUAL FEE

Administrative

Aerospace:	$12,900
Cement plants:	$39,500
Combustion/Boilers:	$9,600
Compressor stations:	$7,900
Electronics:	$12,700
Expandable Foam:	$9,100
Foundries:	$12,100
Landfills:	$9,900
Lime Plants:	$37,300
Copper & Nickle Plants:	$9,300
Gold Mines:	$9,300
Mobile Home Manufacturing:	$9,200
Paper Mills:	$12,700
Paper Coaters:	$9,600
Petroleum Products Terminal facilities:	$14,100
Polymeric Fabric Coaters:	$12,700
Reinforced Plastics:	$9,600
Semiconductors Fabrication:	$16,700
Copper Smelters:	$39,500
Utilities-Natural Gas:	$10,200
Utilities-Fossil Fuel except NG:	$20,200
Vitamin/Pharmaceutical Manufacturing:	$9,800
Wood Furniture:	$9,600
Others:	$9,900
Others with Continuos Emission Monitoring:	$12,700

Notes:

There is no fee for transfers, administrative amendments, or 317 changes of permits.

The fee rate will be adjusted in the beginning of each year based on the CPI index.

Administrative and Inspection fees are due each year no later than March 31st or 60 days after the Director mails the invoice, whichever is later.

Pollutants for which annual emissions based fees are calculated are: Nitrogen oxides, volatile organic compounds, conventional air pollutants (except carbon monoxide and ozone), any pollutant subject to Section 111 of the Act, and any federally listed hazardous air pollutant.

Information for this table was taken from the A.A.C. R18-2-326 and R18-2-511

Fee Rule Summary for Class II Sources

SOURCE

CLASS II

TITLE V

INDIVIDUAL

PROCESSING FEE $66/hr No maximum Fee

ACCELERATED PERMIT APPLICATION FEE $15,000

ANNUAL FEE

Administrative

Synthetic Minor Sources - Except Portables	
Aerospace	$12,600
Cement plants:	$39,500
Combustion/Boilers	$9,600
Compressor stations:	$7,900
Electronics:	$12,700
Expandable Foam:	$9,100
Foundries:	$12,100
Landfills:	$9,900
Lime Plants:	$37,200
Copper & Nickle Plants:	$9,300
Gold Mines:	$9,300
Mobile Home manufacturing	$9,200
Paper Mills:	$12,700
Paper Coaters:	$9,600
Petroleum Products Termina facilities:	$14,100
Polymeric Fabric Coaters:	$12,700
Reinforced Plastics:	$9,000
Semiconductors Fabrication:	$16,700
Copper Smelters:	$39,500
Utilities-Natural Gas:	$10,200
Utilities-Fossil Fuel except NG:	$20,300
Vitamin/Pharmaceutical Manufacturing:	$9,800
Wood Furniture:	$9,600
Others:	$9,900
Others with Continuous Emission Monitoring	$12,700
Stationary Source	$5,000
Portable Source:	$5,000
Small Source:	$500

GENERAL PERMIT

APPLICATION FEE $500

ANNUAL ADMINISTRATIVE FEE

Small Source: $500

Others: $3,300

NON TITLE V

INDIVIDUAL

PROCESSING FEE

$66/HOUR

$25,000 MAXIMUM FEE

ACCELERATED PERMIT APPLICATION FEE $15,000

$25,000 MAXIMUM FEE

ANNUAL INSPECTION FEE

Stationary Sources	$3,250
Portable Sources:	$3,250
Small Source:	$500

GENERAL PERMIT

APPLICATION FEE $500

ANNUAL INSPECTION FEE

Gasoline Service Station:	$600
Crematorium:	$1,000
Others:	$2,000

Notes:

There is no fee for transfers, administrative amendments, or 31T changes of permits.

The fee rate will be adjusted in the beginning of each year based on the CPI index.

Administrative and Inspection fees are due each year no later than March 31st or 60 days after the Director mails the invoice, whichever is later.

Information for this table was taken from the A.A.C. R18-2-326 and R18-2-511